

# Fast and reliable fault diagnosis of 24V feeder circuits



## Your benefits at a glance

- Four feeder circuits per module
- Each output can be set between 2 and 10A using a potentiometer
- Trouble-free switching of loads with high power-on currents by current limiting
- Sequential switching of outputs possible
- Reliable power-down of overload currents for load short circuits
- Holds the 24V supply for other loads
- Multi-color LED per output for rapid fault localization
- Potential-free common signal contact for fault diagnosis
- Additional line protection through exchangeable FK2 blade-type fuse
- Stepwise equipment commissioning through removal of individual fuses
- Simple and rapid installation using standard mounting rail
- Suitable for stabilized power supplies above 5A output current
- Several modules can be connected to a single power supply

# sitop

## SELECT

It has the potential of becoming a real problem: conventional protection of 24V feeder circuits that are supplied by a stabilized power supply. If, for example, the protecting element is too large for the job, then the necessary tripping current can no longer be reached. It doesn't have to be that way, though. Because SITOP select recognizes faulty current paths and shuts them off selectively.



# SIEMENS

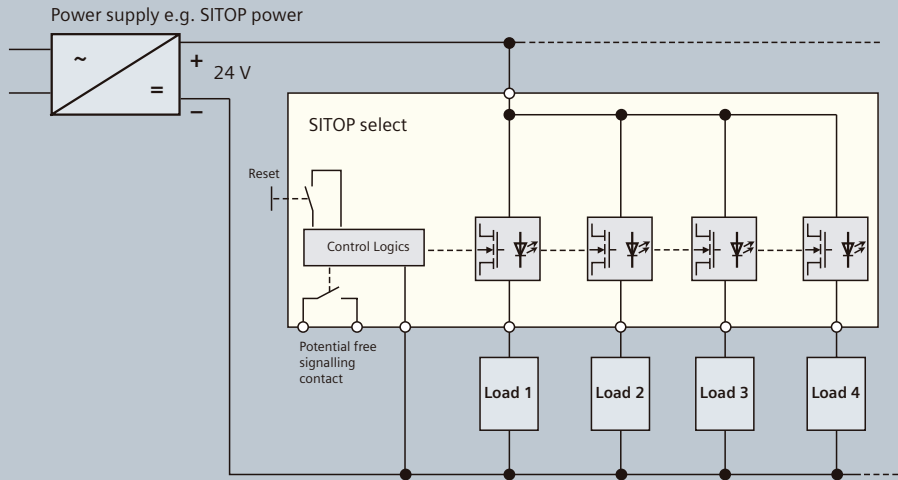
# SITOP select – Optimum Fault Diagnosis

If the SITOP select electronic diagnosis module recognizes an overload or a short circuit in one of the 24V current paths, then it simply deactivates the faulty path, without affecting the supply

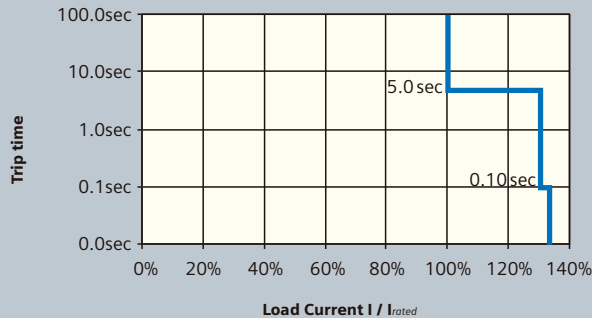
of power to the remaining loads. SITOP select guarantees not only reliable and rapid fault localization, it increases uptimes.

## Technical overview of the SITOP select

### Circuit Diagram



### Typical switching characteristics



$I_{rated}$  can be adjusted from 2 to 10 A. Characteristics per current requirements depending on the output circuit ....

- from 0A to the set value ( $I/I_{rated} = 100\%$ )  
→ without switching off
- from set value up to 130%  
→ Switch off after approx. 5s
- Above 130% of set value  
→ Current limiting to 130% for 50 ms.
- Over the set value with simultaneous collapse of the supply voltage below 20V  
→ Immediate switch off

### Technical specification

**Order Number** 6EP1961-2BA00

#### Input

- Rated voltage  $V_{in rated}$  DC 24V
- Voltage range 22 to 30V
- Power input max. 40A

#### Output

- Rated voltage  $V_{out rated}$   $V_{in} - 0.5V$
- Number of output channels 4
- Rated current  $I_{out}$  upto +60°C **10A per channel**
- Setting range 2 to 10A per channel

**Efficiency at  $V_{out rated}$ ,  $I_{out rated}$**  approx. 97%

#### Protection and Monitoring

- Additional wire protection A blade-type FK2 15A fuse per channel./Externally accessible
- Operation indication Two-color LED per channel: green for switched output, red for output switched off due to overload/short-circuit
- Signalling contact Common signalling contact / N/O contact

**Class of protection (IEC 536; VDE 0106 T1)** Class III

**Degree of Protection (EN 60 529; VDE 0470 T1)** IP 20

**CE Certification** Yes

**TÜV Type approval** Yes

**UL / cUL (CSA)-Approval** UL 508, File 197259

#### Electromagnetic compatibility EMC

- Emitted interference EN 55022 Class B
- Noise immunity EN 61000-6-2

#### Ambient temperature range

0 to +60° C with natural air circulation (self air circulation )

#### Transport and Storage temperature range

-25 to +85° C

#### Connections

- Input 24V Load and electronics supply 2 Screw type terminals for 0.33 up to 10mm<sup>2</sup>
- Input 0V ( Electronics supply) 2 Screw-type terminals for 0.22 up to 4mm<sup>2</sup>
- Outputs 1 to 4 1 Screw-type terminal for 0.22 up to 4mm<sup>2</sup>
- Common signalling contact 2 Screw-type terminals for 0.22 up to 4mm<sup>2</sup>

#### Dimensions (Width x Height x Depth)

72 x 90 x approx. 90 mm

#### Mounting

Standard DIN EN 50022-35 x 7.5/15 mounting rail

#### Weight

approx. 0.4 kg